

Notice of Allowability

Application No.

09/786,559

Examiner

Krystyna Suchecki

Applicant(s)

BHAGAVATULA ET AL.

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment and Response filed 10/24/03.

2. ☐ The allowed claim(s) is/are _____.

3. ☐ The drawings filed on _____ are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

5. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

(a) ☐ The translation of the foreign language provisional application has been received.

6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

8. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No. _____.

(b) ☒ including changes required by the proposed drawing correction filed 24 October 2003 which has been approved by the Examiner.

(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1 ☐ Notice of References Cited (PTO-892)

2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3 ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. _____

4 ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5 ☐ Notice of Informal Patent Application (PTO-152)

6 ☐ Interview Summary (PTO-413), Paper No. _____.

7 ☒ Examiner's Amendment/Comment

8 ☒ Examiner's Statement of Reasons for Allowance

9 ☐ Other

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 33-35 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The optical waveguide lacks critical features such as refractive index changes within and between core sectors so as to differ in scope and unity from the originally presented claims.
2. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 33-35 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with Joseph Homa on 12/17/03.
5. The application has been amended as follows:
6. In claim 1, delete lines 7-8 and insert therein
--of the core region is $r = r_0$;
7. In claim 1, delete lines 14-15 and insert therein

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—in which, the core refractive index changes along at least a radius portion, Δr , extending perpendicular to and outward from the centerline, wherein the radius portion is in the range $0 < \Delta r < r_0$, and—

8. Replace claim 3 as follows:

—The single mode waveguide of claim 1, in which, the radius portion is the segment $\Delta r = r_2 - r_1$, where, $0 \leq r_1 < r_2$ and $r_2 < r_0$.--

9. Replace claim 4 as follows:

—The single mode waveguide of either claim 1 or claim 3 in which the radius portion lies along any radius in at least one sector having included angle $0 < \phi \leq 180^\circ$.—

10. In Claim 5, at lines 1 and 2, delete “The single mode waveguide of claim 2, in which, the pre-selected portion of the radius”

and insert therein

--The single mode waveguide of claim 1, in which, the radius portion—

11. In claim 6, at lines 1 and 2, delete “The single mode waveguide of claim 2, in which, the pre-selected portion of the radius”

and insert therein

--The single mode waveguide of claim 1, in which, the radius portion—

12. Amend claim 10 to depend from claim 1.

13. Amend claim 12 to depend from claim 1.

14. Amend claim 14 to depend from claim 1.

15. In claim 30, delete lines 7-8 and insert therein

—of the core region is $r = r_0$;--

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16. In claim 30, delete lines 14-15 and insert therein

—in which, the core refractive index changes along at least a radius portion, Δr , extending perpendicular to and outward from the centerline, wherein the radius portion is in the range $0 < \Delta r < r_0$, and—

17. Cancel claims 33-35.

Allowable Subject Matter

18. The following is an examiner's statement of reasons for allowance: Claims 1, 22 and 26 contain allowable subject matter as they have been amended to include allowable subject matter as indicated in the last Office action dated 05/22/03. New claim 30 contains allowable subject matter for teaching a single mode optical waveguide fiber having a radially varying and azimuthally asymmetric core comprising refractive index differences and core sectors with their particulars as claimed with the previously indicated allowable subject matter. Claims 3-7, 9-14, 23- 25, 27, 29 and 31-32 are allowable by virtue of their dependency.

19. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (703) 305-5424. The examiner can normally be reached on M-F 8-6, with alternating Fridays off.

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21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (703) 308-4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.
22. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

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DAVID V. BRUCE
PRIMARY EXAMINER